

EXAMINER'S AMENDMENT

- 1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.**

- 2. Authorization for this examiner's amendment was given in a telephone interview with Barry Gaiman (Reg. No. 42,562) on November 17, 2008.**

- 3. Amend the claims as follows:**
 1. (Currently Amended) In a storage area network, a method for identifying the impact of event occurrences comprising:
identifying a configuration of managed entities of interest in the storage area network, identifying the configuration further comprising:
determining, based on a set of business processes, business operations dependent on particular manageable entities; and
designating the determined manageable entities as manageable entities of interest;
determining relations between the managed entities of interest and other managed entities in the storage area network, the relations indicative of an event

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at a managed entity having an affect on another managed entity, wherein determining the relations further comprises parsing the manageable entities to identify managed entities of interest, the managed entities of interest including managed entities effected directly or indirectly by an event at another managed entity;

 caching recently accessed relations to provide a cache of effected managed entities;

 registering for notification of events affecting, based on the determined relations, the designated~~identified~~ manageable entities;

 receiving an indication of an event affecting a registered manageable entity; and

 determining, via the determined relations, other manageable entities affected by the received event, the determining comprising traversing the cache of effected managed entities and selectively invoking a relation service operable to identify other managed entities effected by a particular managed entity according to the relations if no match is found in the cache.

2. (Original) The method of claim 1 wherein determining the other manageable entities further involves:

 traversing the relations between managed entities from the manageable entity directly affected by the event; and

 identifying, from the traversing, manageable entities of interest affected by the received event.

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3. (Original) The method of claim 2 further comprising storing the relations between the manageable entities, the relations operable to be mapped in response to corresponding events

4. (Original) The method of claim 3 wherein determining affected manageable entities further comprises:

traversing a mapping of events and affected manageable entities;

matching the received event to the mapping of events and affected manageable entities; and

traversing the relations using the manageable entity corresponding to the matching event to determine affected manageable entities.

5. (Canceled)

6. (Original) The method of claim 1 wherein registering for notification of events affecting manageable entities of interest further comprises identifying types of events affecting a particular manageable entity and other manageable entities of interest relative to the particular manageable entity based on the determined relations.

7. (Canceled)

8. (Canceled)

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9. (Canceled)

10. (Original) The method of claim 1 further comprising integrating, via an adaptor, an indication of the identified manageable entity of interest and the triggering event with a service impact monitor operable to apply the manageable entity of interest to determine affected business processes.

11. (Currently Amended) A computerized method for correlating operational events with enterprise processes to evaluate impact of network occurrences comprising:

identify a model of events and objects, the model operable to enumerate events corresponding to objects and further operable to enumerate objects corresponding to other objects via a relation and wherein objects are manageable entities in a storage area network, the manageable entities responsive to a server and console controlling the storage area network;

selecting, based on a level of overview scrutiny of the network, objects indicative of performance to monitor, selecting the objects indicative of performance to monitor further comprising:

determining, based on a set of business processes, business operations dependent on particular manageable entities; and

designating the determined manageable entities as manageable entities of interest for monitoring;

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enumerating events operable to affect one of the selected objects to be monitored;

building, by observing interconnections between the objects, virtual relationships between objects, ~~the~~ interrelations indicative of a dependency relation between objects;

identify events directly affecting at least one of the selected objects;

traverse the built virtual relationships to determine objects indirectly affected by the identified directly affected object;

registering with an event service to receive events corresponding to an occurrence of an enumerated event;

awaiting an occurrence of an event corresponding to a registered event;

reporting the event and the indirectly, affected objects; and

identifying, in a SIM manager, enterprise processes corresponding to the indirectly affected objects.

12. (Canceled)

13. (Currently Amended) The method of claim 11 further comprising:

displaying via a graphic output device, ~~the~~ affected manageable entities; and

tagging affected objects indicative of the sequence of relations affecting successive objects, the tagging indicative of direct and indirect impact of the events.

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14. (Currently Amended) A server for identifying the impact of event occurrences in a managed information network comprising a computer processing device responsive to computer program code on a computer readable storage medium that, when executed, causes the computer processing device to perform steps, the server further comprising:

an interface to a manageable entity database having a configuration file, the interface operable to access a configuration file indicative of managed entities of interest in ~~the~~a storage area network, the configuration file for identifying ~~the~~a configuration by:

determining, based on a set of business processes, business operations dependent on particular manageable entities; and

designating the determined manageable entities as the manageable entities of interest;

a rule engine operable to determine relations between the managed entities of interest and other managed entities in the storage area network, the relations indicative of an event at a managed entity having an affect on another managed entity, the rule engine further operable to register for notification of events affecting, based on the relations, the designatedidentified manageable entities, wherein the rule engine is operable to parse the manageable entities to identify managed entities of interest, the managed entities of interest including managed entities effected directly or indirectly by an event at another managed entity; and

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an adapter responsive to the rule engine for receiving an indication of an event affecting a registered manageable entity, the adapter further operable to determine, via the determined relations, other manageable entities affected by ~~the~~ received event; and

wherein the adapter is further operable to traverse a cache of effected managed entities and selectively invoking ~~the~~ relation service if no match is found in the cache.

15. (Currently Amended) The server of claim 14 wherein the rule engine is further operable to:

traverse the relations between managed entities from the manageable entity directly affected by the received event; and

identify, from the traversing, manageable entities of interest affected by the received event.

16. (Original) The server of claim 14 further comprising a relations file in the manageable entity database operable to store the relations between the manageable entities, the relations operable to be mapped in response to corresponding events

17. (Original) The server of claim 16 wherein the rule engine is further operable to determine affected manageable entities by:

traversing a mapping of events and affected manageable entities;

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matching the received event to the mapping of events and affected manageable entities; and

traversing the relations in the relations file using the manageable entity corresponding to the matching event to determine affected manageable entities.

18. (Canceled)

19. (Original) The server of claim 14 wherein the rule engine registers for notification of events affecting manageable entities of interest by identifying types of events affecting a particular manageable entity and further identifying other manageable entities of interest relative to the particular manageable entity based on the determined relations.

20. (Currently Amended) The server of claim 14 wherein the adapter is operable to invoke a relation service operable to identify other managed entities effected by a particular managed entity according to the determined relations.

21. (Canceled)

22. (Original) The server of claim 14 wherein the configuration file is adapted to identify, based on a set of business processes, business operations dependent on particular manageable entities.

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23. (Currently Amended) The server of claim 14 wherein the adaptor is operable to communicate an indication of the ~~designated~~identified manageable entity of interest and the triggering event to a service impact monitor operable to apply the manageable entity of interest to determine affected business processes.

24. (Currently Amended) A computer program product having a computer readable medium operable to store computer program logic embodied in computer program code encoded thereon for identifying the impact of event occurrences in a managed information network comprising:

computer program code for identifying a configuration of managed entities of interest in the storage area network, identifying the configuration further comprising:

determining, based on a set of business processes, business operations dependent on particular manageable entities;

selecting, based on a level of overview scrutiny of the managed information network, objects indicative of performance to monitor, selecting the objects indicative of performance to monitor; and

designating the determined manageable entities as manageable entities of interest comprising parsing the manageable entities to identify managed entities of interest, the managed entities of interest including managed entities effected directly or indirectly by an event at another managed entity;

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computer program code for determining relations between the managed entities of interest and other managed entities in ~~the~~a storage area network, the relations indicative of an event at a managed entity having an affect on another managed entity;

computer program code for registering for notification of events affecting, based on the determined relations, the ~~designated~~identified manageable entities;

computer program code for receiving an indication of an event affecting a registered manageable entity; and

computer program code for determining, via the determined relations, other manageable entities affected by ~~the~~a received event, the determining comprising traversing a cache of effected managed entities and selectively invoking a relation service if no match is found in the cache.

25. (Canceled)

26. (Currently Amended) An ~~infrastructure~~ server having a processor for identifying the impact of event occurrences in a managed storage area network comprising:

means for identifying a configuration of managed entities of interest in the storage area network, identifying the configuration further comprising:

determining, based on a set of business processes, business operations dependent on particular manageable entities;

selecting, based on a level of overview scrutiny of the storage area network, objects indicative of performance to monitor, selecting the objects indicative of performance to monitor ~~further comprising; and~~

designating the determined manageable entities as manageable entities of interest comprising parsing the manageable entities to identify managed entities of interest, the managed entities of interest including managed entities effected directly or indirectly by an event at another managed entity;

means for determining relations between the managed entities of interest and other managed entities in the storage area network, the relations indicative of an event at a managed entity having an affect on another managed entity;

means for registering for notification of events affecting, based on the determined relations, the ~~designated~~identified manageable entities;

means for receiving an indication of an event affecting a registered manageable entity; and

means for determining, via the determined relations, other manageable entities affected by ~~the~~a received event, the determining comprising traversing a cache of effected managed entities and selectively invoking a relation service if no match is found in the cache.

27. (Previously Presented) The method of claim 1 wherein the determining the other manageable entities further involves checking a memory of a local server for a match of the managed entities of interest, the matching managed entities of interest used in the determining, otherwise the determining checks for the match

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of the managed entities of interest in a database of the managed entities of interest.

28. (Previously Presented) The server of claim 14 wherein the rule engine is further operable to:

check a memory of a local server for a match of the managed entities of interest using a found match to determine the relations between the managed entities of interest and the other managed entities in the storage area network, otherwise the rule engine checks for the match of the managed entities of interest in a database of the managed entities of interest.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

CONCLUSION

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KimbleAnn Verdi whose telephone number is (571)270-1654. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm EST.

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6. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Meng-Ai An/

Supervisory Patent Examiner, Art Unit 2195

November 18, 2008

KV